

ABSTRACT

The apparatus (1,1') for the detection of gas combustion in an domestic gas heater or a water heater is designed as an independent installation unit mounted on a shared support bracket (8,8'), provided with a thermoelectric generator assembly (4-6, 20-26) for supplying a safety valve (16) and a main gas valve (17) of the gas heater, generating two respective lower (Vb) and higher (Vd) voltages therefor. The thermoelectric assembly (4-6,20-26) heated by a pilot flame (3) is built up by means of one or two flat Peltier type p-n junction cells (4, 20-21), which are connected to a heat transmission element (5,25) licked by the pilot flame (3) and to a shared heat sink (6,22).

Fig. 3